

CLAIMS

1. An isolator/dissipator for interfacing between the ground and supporting structures, characterized in that it comprises a supporting base (3) that can be fixed to the ground (100) and supports a contact base (5) that  
5 can be associated, by way of kinematic connection means (6), with a lower portion (2a) of at least one supporting upright (2) of a supporting structure (20), interface means (7) being provided between said contact base (5) and said supporting base (3) and being adapted to allow said contact base (5) to move with respect to said supporting base (3) at least along two directions  
10 that are parallel to the ground (100), return means (10) being provided which are adapted to control the relative movement between said contact base (5) and said supporting base (3), said return (10) means acting between said supporting base (3) and said contact base (5).

2. The isolator/dissipator according to claim 1, characterized in that  
15 said return means comprise means (10) for controlling the movement of said contact base (5) with respect to said supporting base (3), said control means (10) having a behavior that is substantially at least elastic.

3. The isolator/dissipator according to one or more of the preceding claims, characterized in that said control means (10) substantially have an  
20 elastoplastic behavior.

4. The isolator/dissipator according to one or more of the preceding claims, characterized in that said control means (10) have a substantially viscoelastic behavior.

5. The isolator/dissipator according to one or more of the preceding  
25 claims, characterized in that said control means (10) have a substantially viscoelastoplastic behavior.

6. The isolator/dissipator according to claim 1, characterized in that said interface means (7) are adapted to allow the movement of said contact base (5) on a plane that is substantially parallel to the ground (100).

30 7. The isolator/dissipator according to one or more of the preceding

claims, characterized in that said interface means (7) comprise a plurality of balls (8), which rest on said supporting base (3) and support said contact base (5).

8. The isolator/dissipator according to one or more of the preceding  
5 claims, characterized in that said a plurality of balls (8) are kept spaced from each other by way of a framework (9).

9. The isolator/dissipator according to one or more of the preceding claims, characterized in that said framework (9) comprises means that are adapted to retain the balls (8).

10 10. The isolator/dissipator according to one or more of the preceding claims, characterized in that said interface means (7) comprise a sheet with a low friction coefficient.

11. The isolator/dissipator according to one or more of the preceding claims, characterized in that said sheet having a low friction coefficient is  
15 made of PTFE or Polizene.

12. The isolator/dissipator according to one or more of the preceding claims, characterized in that said control means (10) comprise at least one substantially annular element, which has a first edge (10a) that can be fixed to said contact base (5) and a second edge (10b) that can be fixed to said  
20 supporting base (3).

13. The isolator/dissipator according to one or more of the claims 1-11, characterized in that said control means (10) comprise at least one substantially disc-like element, which has a central core that can be fixed to said contact base (5) and a second edge (10b) that can be fixed to said  
25 supporting base (3).

14. The isolator/dissipator according to one or more of the claims 1-11, characterized in that said control means (10) comprise a para rubber sheet or a silicone sheet.

15. The isolator/dissipator according to one or more of the claims 1-  
30 11, characterized in that said control means (10) comprise a sheet made of

rubber, such as for example a sheet made from a rubber selected from the group containing styrene rubber, natural rubber, styrene and polybutadiene rubber, nitrile rubber, chloroprene rubber (Neoprene), ethylene propylene rubber (EPDM), fluoridized rubber, silicone rubber and natural and  
5 chloroprene rubber.

16. The isolator/dissipator according to one or more of the preceding claims, characterized in that said para rubber sheet or said silicone sheet is pre-tensioned.

17. The isolator/dissipator according to claim 15, characterized in that  
10 said sheets made of any of styrene rubber, natural rubber, styrene and polybutadiene rubber, nitrile rubber, chloroprene rubber (neoprene), ethylene propylene rubber (EPDM), fluoridized rubber, silicone rubber and natural and chloroprene rubber are provided pre-tensioned.

18. The isolator/dissipator according to one or more of the preceding  
15 claims, characterized in that said control means (10) comprise a plurality of elements (18,19) for connecting said supporting base (3) and said contact base (5).

19. The isolator/dissipator according to claim 18, characterized in that said elements (19) are arranged radially.

20 20. The isolator/dissipator according to one or more of the preceding claims, characterized in that said elements (19) have an elastic or elastoplastic or viscoelastic or viscoelastoplastic behavior.

21. The isolator/dissipator according to one or more of the preceding claims, characterized in that said elastic elements (19) comprise a plurality  
25 of elastic components or a plurality of springs (19a).

22. The isolator/dissipator according to one or more of the preceding claims, characterized in that said kinematic connecting means (6) comprise a pin (13) that protrudes from said contact base (5) substantially at right angles to said contact base (5), and an engagement seat (14) for said pin  
30 (13), which is formed at said lower portion (2a) of said at least one

supporting upright (2).

23. The isolator/dissipator according to one or more of the preceding claims, characterized in that it comprises means (15) for locking said at least one supporting upright (2) to said supporting base (3).

5        24. The isolator/dissipator according to claim 23, characterized in that said locking means comprise a locking cross-member (15) which is parallel to the ground (100) during use and can be fixed to at least one shoulder (16) that protrudes from said supporting base (3) and is arranged above an abutment element (17) supported by said at least one supporting upright (2).

10       25. The isolator/dissipator according to one or more of the preceding claims, characterized in that it comprises a first ring (11) for fixing said substantially annular element to said contact base (5) and a second ring (12) for fixing said substantially annular element to said supporting base (3).

15       26. The isolator/dissipator according to one or more of the preceding claims, characterized in that it comprises means (19) for the central positioning and centering of said interface means (7).

20       27. The isolator/dissipator according to one or more of the preceding claims, characterized in that said initial positioning and centering means (19) comprise a plurality of spring-type centering elements (19a), which are interposed between said framework (9) and said second fixing ring (12).

28. The isolator/dissipator according to one or more of the preceding claims, characterized in that it comprises at least one element (18) for connection between said contact base (5) and said interface means (7) for the initial positioning of said interface means (7).

25       29. The isolator/dissipator according to one or more of the preceding claims, characterized in that said connecting element (18) can engage said supporting base (3).

30       30. The isolator/dissipator according to one or more of the preceding claims, characterized in that said at least one connecting element (18) comprises at least one centering pin engageable within respective centering

openings provided in said contact base (5), in said interface means (7) and/or in said supporting base (3).

31. The isolator/dissipator according to one or more of the preceding claims, characterized in that said control means (10) comprise a toroidal  
5 element that has an elastic or elastoplastic or viscoelastic or viscoelastoplastic behavior and is interposed between said contact base (5) and an abutment shoulder that rises from said supporting base (3).

32. The isolator/dissipator according to one or more of the preceding claims, characterized in that said control means (10) comprise at least one  
10 response control device, which comprises fluid elements of the Newtonian type or of the non-Newtonian type associated with said interface means (7).

33. The isolator/dissipator according to one or more of the preceding claims, characterized in that said supporting upright (2) is adapted to support at least one shelf of an industrial shelf unit (20).

15 34. The isolator/dissipator according to one or more of the preceding claims, characterized in that it is associated with a component or a system of components for the building sector.